

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A method for controlling ~~[[the]]~~ partial pressure of oxygen when mutually separating minerals from a slurry containing valuable minerals in ~~[[the]]~~ different process steps of ~~[[the]]~~ a separation process, ~~characterized in that wherein~~ in order to control the partial pressure of oxygen, the method comprising, recirculating ~~[[the]]~~ gases fed in the different process steps ~~are recirculated~~ in an essentially closed gas circulation created around ~~[[the]]~~ equipment used in the different process steps, ~~so that the controlling~~ gas recirculation is ~~controlled~~ by measuring ~~[[the]]~~ potential of the valuable minerals in the slurry containing valuable minerals.
2. (Currently Amended) ~~[[A]]~~The method according to claim 1, ~~characterized in that wherein the process is provided with equipment required is for~~ ~~[[the]]~~transferring and recirculating gas transfer and recirculation.
3. (Currently Amended) ~~[[A]]~~The method according to claim 2, ~~characterized in that wherein the process is provided with equipment comprises a~~ recirculation pipework, at least with one fan and a storage tank.
4. (Currently Amended) ~~[[A]]~~The method according to ~~any of the preceding claims, characterized in that~~ claim 1, wherein in the recirculation of gases, ~~there is utilized the suction and underpressure is naturally created owing to the rotation of the by~~ agitation equipment installed in the different process steps.
5. (Currently Amended) ~~[[A]]~~The method according to ~~any of the preceding claims, characterized in that the~~ claim 1, wherein dividing the feeding of ~~[[the]]~~a secondary gas is needed in the process ~~is divided~~ according to the separate process steps, so that the same secondary gas is fed to the different process steps.
6. (Currently Amended) ~~[[A]]~~The method according to ~~any of the preceding claims 1—4, characterized in that~~ claim 1, wherein the partial pressure of oxygen in ~~[[the]]~~a secondary gas needed in the process is changed between secondary gas additions fed in the different process steps.

7. (Currently Amended) ~~[[A]]The method according to any of the preceding claims, characterized in that the~~ claim 1, wherein oxygen is added addition-needed for controlling the partial pressure of oxygen ~~is obtained~~ by feeding air in the process.

8. (Currently Amended) ~~[[A]]The method according to any of the preceding claims 1—6, characterized in that the~~ claim 1, wherein oxygen is added addition-needed for controlling the partial pressure of oxygen ~~is obtained~~ by feeding oxygen in the process.

9. (Currently Amended) ~~[[A]]The method according to any of the preceding claims 1—6, characterized in that the~~ claim 1, wherein oxygen is added addition-needed for controlling the partial pressure of oxygen ~~is obtained~~ by feeding oxygen enriched air in the process.

10. (Currently Amended) ~~[[A]]The method according to any of the preceding claims, characterized in that the~~ claim 1, wherein an oxidizing gas contains ozone (O₃).

11. (Currently Amended) ~~[[A]]The method according to any of the preceding claims, characterized in that~~ claim 1, wherein the recirculation gas contains reducing gas.

12. (Currently Amended) ~~[[A]]The method according to claim 11, characterized in that~~ wherein the recirculation gas contains hydrogen sulphide.

13. (Currently Amended) ~~[[A]]The method according to claim 11, characterized in that~~ wherein the recirculation gas contains sulphur dioxide.

14. (Currently Amended) ~~[[A]]The method according to any of the preceding claims, characterized in that the grinding step of~~ claim 1, wherein the process comprises a grinding step that is closed in the gas circulation.

15. (Currently Amended) ~~[[A]]The method according to any of the preceding claims 1—13, characterized in that~~ claim 1, wherein the process comprises a flotation step used for mutually separating the minerals that is closed in the gas circulation.

16. (Currently Amended) ~~[[A]]The method according to any of the preceding claims 1—13, characterized in that~~ claim 1, wherein the precipitation step used for mutually separating the minerals is closed in the gas circulation.

17. (Currently Amended) ~~[[A]]The method according to any of the preceding claims 1—13, characterized in that~~ claim 1, wherein the process comprises a filtering step used for mutually separating the minerals that is closed in the gas circulation.

18. (Currently Amended) ~~[[A]]~~The method according to ~~any of the preceding claims, characterized in that~~ claim 1, wherein the potential of the slurry containing valuable minerals is measured by mineral electrodes.

19. (Currently Amended) ~~[[A]]~~The method according to ~~any of the preceding claims 1—17, characterized in that in the measurement of~~ claim 1, wherein the potential of the slurry containing valuable minerals~~[[,]] is measured by impedance is made use of.~~

20. (Currently Amended) ~~[[A]]~~The method according to ~~any of the preceding claims 1—17, characterized in that in the measurement of~~ claim 1, wherein the potential of the slurry containing valuable minerals~~[[,]] is measured by reagent contents are made use of.~~